



FACULTY RESEARCH DAY REPORT

Navigating Health Disparities in Vulnerable Communities

Interventions to promote healthcare for vulnerable populations

Maternal and child health: Chronic disease management

Response to impact of climate change on health

Paradigm shift for patient care: From diagnostics to therapies to clinical management



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
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Faculty of
Health Sciences

Fakuleit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

Make today matter

About Faculty Research Day

Faculty Research Day is an inspiring annual research conference hosted by the Faculty of Health Sciences (FHS). Faculty Research Day is traditionally organised by the Research Office on behalf of the FHS. This event allows staff and students, research entities, and partner organisations to interact, share knowledge, and showcase their innovative research.

Our 2024 Faculty Research Day theme, 'Navigating Health Disparities in Vulnerable Communities,' is well aligned with the FHS Research Office's mission to stimulate an inclusive, collaborative, multidisciplinary, and transdisciplinary research environment. This theme emphasises interventions to promote health care for vulnerable populations, maternal and child health, chronic disease management, and the paradigm shift for patient care—from diagnostics to therapies to clinical management, including responses to the impact of climate change on health. Our Faculty Research Day provides educational opportunities through keynote addresses on these critical areas by experts and thematic oral and poster presentations. Additionally, this event allowed students and staff from various schools and departments to connect, work together, and develop innovative research projects aimed at navigating health disparities in vulnerable communities, advancing the FHS's transdisciplinary research mandate while improving the visibility and impact of our work, and promoting transformative research that leads to social impact.

The FHS Research Day has traditionally involved undergraduates, postgraduates, and postdoctoral fellows as key participants and part of the organising team. In the 2022 and 2023 Faculty Research Days, undergraduate students were emphasised. The establishment of the TURF Symposium in 2022 and 2023 reinforced this inclusive approach. However, the 2024 Faculty Research Day shifted its focus towards postgraduate students, incorporating research methods workshops to support them in efficiently completing their research projects.

Sponsors

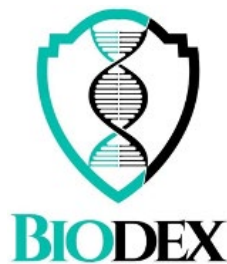


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Main Sponsors

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Foreword

The 2024 Faculty Research Day took place over two days, drawing 572 participants, including delegates, oral presenters, and exhibitors. Unlike the past three years' Faculty Research Days, this year's event was in-person and featured interactive workshops designed for post-graduate students, early-career academics, and researchers. It was hosted on August 28th and 29th, 2024, at the Tswelopele Building, Prinshof South Campus, University of Pretoria (UP). The sessions were recorded to provide access to students, staff, and partners who could not attend in person. Aligned with the Faculty's 2024 theme, the Research Day focused on **'Navigating Health Disparities in Vulnerable Communities'**, covering the following subthemes:



Professor Tivani Mashamba-Thompson
Chairperson of the 2024 Faculty Research Day

- **Interventions to Promote Health Care for Vulnerable Populations**
- **Maternal and Child Health**
- **Chronic Disease Management**
- **Paradigm Shift for Patient Care: From Diagnostics to Therapies to Clinical Management**
- **Response to the Impact of Climate Change on Health**

The Faculty Day Programme was suggested by the 2024 Faculty Research Day Steering Committee and approved by Faculty Exco. A total of 151 FHS students and staff participated in the Programme through oral and poster presentations. These were complemented by a panel discussion aligned with the main theme and workshops on day one. Select sponsors also showcased their products on day one. Outside of these sessions, FHS research entities and sponsors exhibited outside the venues. Posters were also displayed outside these venues throughout the day. With support from the Department of Research and Innovation, the event included an award ceremony to promote research excellence.

The event featured a prestigious invited speaker and FHS-established research leaders. The various speakers addressed areas of concern regarding navigation research among vulnerable communities. This platform incorporated features encouraging attendance, participation, and interaction between delegates, speakers and exhibitors. The event inculcated a firm bond between current and future research terrain and knowledge in the evolving field of health science.

Effective dissemination of our knowledge is one of our key priorities in line with the University's research visibility and strategic objectives. We are committed to developing health solutions in collaboration with stakeholders. Knowledge shared during this event will be distributed to all relevant stakeholders through this report, including all University Faculty Research Offices and external partners. The knowledge will also be disseminated through a science communications article and in science communications platforms. All presented posters, most of which were presented by postgraduate students, are accessible via the UP library repository.

The shared knowledge will also stimulate new research topics and collaborations among researchers. Thus, scientific collaborations are nurtured, including opportunities to build sustainable networks between peers, undergraduate and postgraduate students, and academics within different FHS schools, departments, and industry partners.

The 2024 Faculty Research Day recordings and pictures are accessible on the 2024_Faculty Research Day website.

Programme Structure

The Faculty Research Day Steering Committee drafted the scientific programme chaired by Prof Tivani Mashamba-Thompson, FHS Deputy Dean for Research and Postgraduate Studies. The scientific programme comprised keynote speeches, panel discussion sessions, scientific sessions (four themes), workshops, FHS Research Entity exhibition stands, and an open poster exhibition. The structure of the programme is outlined in Figure 1. The full programme can be found in the appendices.

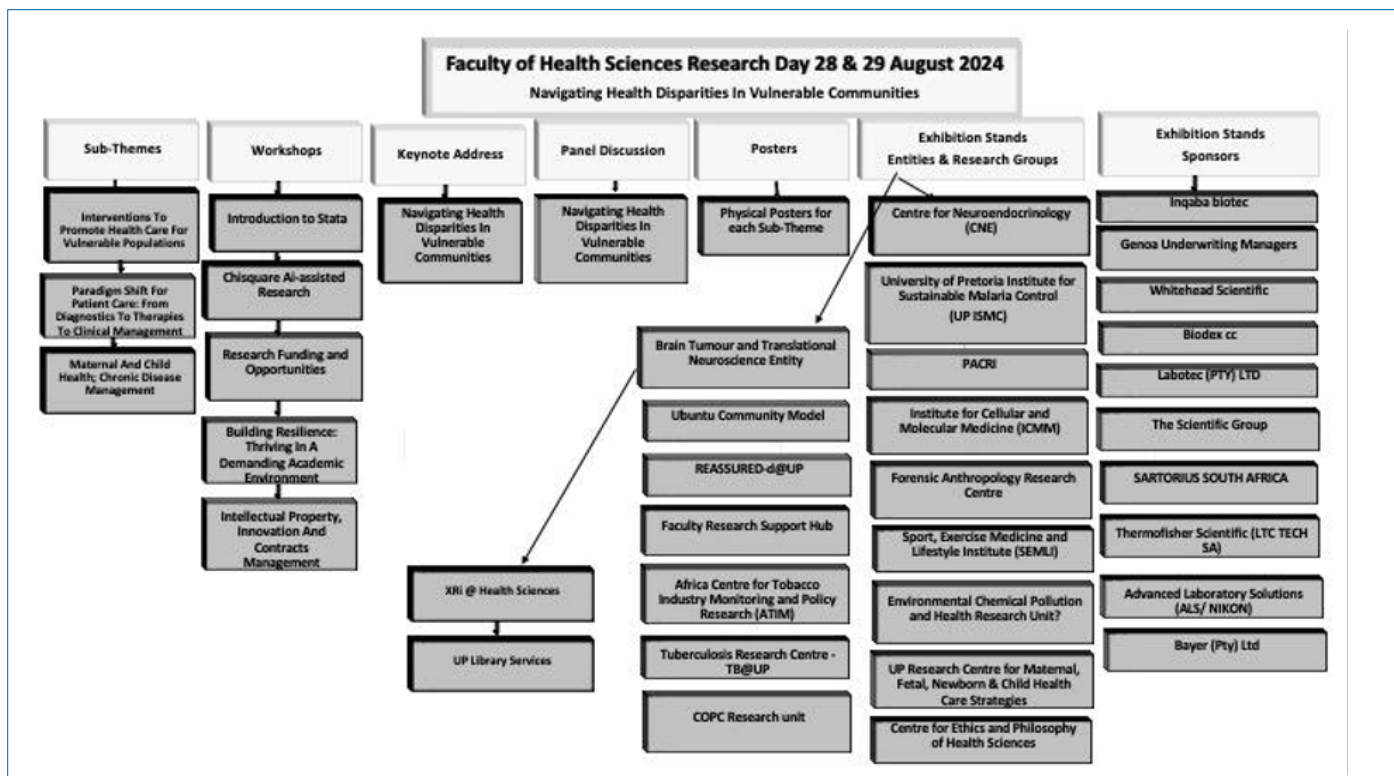


Figure 1: Structure of the Faculty Research Day Programme

Presentations from Selected Abstracts

A call for 2024 Faculty Research Day abstract submission was opened from 10 May 2024 to 21 June 2024, and the registration was opened from 3 June 2024 to 10 August 2024. A total of 152 abstracts were submitted from FHS students and staff, from undergraduate students to Full Professors. All submitted abstracts were received by the FHS Research Coordinator, **Ms Anwani Nekhumbe** and submitted to the respective Schools' RESCOM Chairs for review by the School abstract review committee. A total of 151 abstracts (38 oral, 113 posters) were selected following the review process, which took place at the school level. Table 1 presents the number of oral and poster presentations selected for the 2024 Faculty Research Day.

Table 1: Number of 2024 Faculty Research Day oral and e-poster presentations

Presentation session	Oral presentation	Poster presentations	Total
Interventions to Promote Health Care for Vulnerable Populations	19	37	56
Maternal and Child Health: Chronic Disease Management	7	15	22
Response to the Impact of Climate Change on Health	0	3	3
Paradigm Shift for Patient Care: From Diagnostics to Therapies to Clinical Management	12	58	70
Total	38	113	151

Session Description

The programme for day two allowed all attendees to be present for the keynote speeches before splitting between two venues to attend the parallel oral presentation sessions. Sessions ran throughout the day and provided an excellent opportunity to witness world-class speakers share their ground-breaking research and plans to make an impactful change in health science. The table below describes the various sessions, including their objectives and duration.

Table 2: Description of various sessions, including the objectives and duration.

Session type	Description	Objectives	Duration (min)
Plenary session	One standalone keynote address by an expert on research innovation	This session set the tone for Faculty Research Day and introduced participants to what is done globally.	40
Panel discussion	Six panel members (experts) who had wide-ranging discussions on specific topics directed by a discussant. The roundtable discussions did not run in parallel with other sessions.	The session educated participants on specific issues from different perspectives.	40
Scientific sessions	These sessions included presentations by invited speakers from the FHS and supporting entities. The sessions included oral presentations of selected abstracts. The presentations were limited to 10 minutes each	These sessions provided established and emerging researchers a platform to showcase their latest research.	70
Poster exhibitions/ presentations	The exhibition included posters of selected abstracts. The posters were arranged per discipline and hosted on the virtual conference platform.	This was a platform for researchers to showcase their work,	Two days
Exhibition stands	Sponsors and partners in research showcased their work and products. The sponsors fully planned the sessions, and the logistics committee provided technical support.	These sessions allowed sponsors to showcase their work and products to congress participants.	Two days
Workshop session	Interactive workshops led by experts. Participants engaged in hands-on activities and in-depth discussions guided by workshop facilitators. The workshops provided a focused, practical exploration of critical topics.	The workshop session aimed to provide participants with practical skills in managing intellectual property, innovation, contracts, biostatistics, funding, and strategies for thriving in a demanding academic environment.	1 day

Opening Ceremony

Prof Mashamba Thompson reflected a tone of pride and optimism for the future of the FHS. The event was framed as an opportunity to reflect on the challenges faced by South Africa and as a celebration of the country's immense potential. The Deputy Dean emphasised that while South Africa is confronted with complex health challenges, particularly within its most vulnerable communities, these challenges should be viewed as a call to action—a chance to make a real difference. The 2024 Faculty Research Day theme encouraged deep reflection on the multifaceted nature of health disparities shaped by socioeconomic factors, geographic inequalities, systemic biases, and historical injustices. The Deputy Dean highlighted that within these challenges lies the opportunity to create lasting and positive change.



The impact of the COVID-19 pandemic was acknowledged, bringing health disparities into sharp focus and underscoring the urgent need for sustainable and inclusive healthcare solutions. Moving forward, the Deputy Dean stressed the importance of collaboration across disciplines, sectors, and communities, stating that no single entity—whether government, institution, or organisation—can address these disparities alone. Collective efforts are essential to create meaningful and lasting change. Attendees were encouraged to engage fully, ask thoughtful questions, and embrace bold ideas, as the Faculty Research Day was presented as a space where innovation is not just welcomed but celebrated. The Deputy Dean saw this as an opportunity to push boundaries and inspire one another to work toward a healthier and more equitable South Africa.

In closing, the Deputy Dean expressed deep gratitude to everyone who had contributed to the success of this and previous Faculty Research Days, including organisers, sponsors, speakers, and participants. The dedication to advancing health equity and research excellence was acknowledged as truly inspiring, and confidence was expressed that these efforts would continue to have a lasting impact. As the Faculty transitions to a new phase, with Schools hosting their research days in alignment with the strong School model, the Deputy Dean expressed confidence that the spirit of collaboration and innovation cultivated during these Faculty Research Days will continue to thrive. The opening address concluded with well wishes for a fruitful and inspiring final Faculty Research Day under the Deputy Dean's leadership.

Following the Deputy Dean's speech, the FHS Choir, conducted by **Mr Mpumelelo Manyathi**, kept everyone in high spirits with their angelic voices. Incorporating a choir into a Faculty Research Day themed 'Navigating Health Disparities in Vulnerable Communities' offered numerous benefits. A choir fosters emotional connection, creating an inspiring, inclusive atmosphere that resonates with the audience. Through culturally diverse music, it highlights the importance of sensitivity and empathy in healthcare, reflecting the day's themes. The choir also symbolises unity and collaboration, mirroring the collective effort required to address health disparities. By transcending barriers through the universal language of music, a choir enhanced the event's impact, encouraging reflection, fostering community engagement, and leaving participants with a renewed sense of hope and purpose.



Faculty of Health Sciences Choir singing at the 2024 Faculty Research Day.

Key Points from the Faculty Research Day Keynote Addresses



Prof Glenda Gray, Chief Scientific Officer of the South African Medical Research Council (SAMRC) and immediate former CEO and President of the SAMRC, gave the keynote address.

In her address, Prof Glenda Gray discussed health disparities and their implications for public health in South Africa. She highlighted her experience as a paediatrician and infectious disease expert, focusing on HIV and COVID-19 vaccines and mother-to-child transmission of HIV. Prof Gray emphasised that health disparities result in different health outcomes, such as variations in life expectancy, mortality, and the prevalence of certain conditions.

She discussed the historical context of these disparities, tracing them back to colonialism and Apartheid, which caused significant social and economic inequities. These inequities continue to manifest in the current health system, where there is a stark contrast between private and public sector healthcare. She underscored that despite the end of Apartheid, South Africa remains racially and economically segregated, with a heavy burden of disease, poverty, and unequal access to quality healthcare.

Prof Gray also discussed the quadruple burden of disease in South Africa, which includes HIV and tuberculosis, non-communicable diseases, maternal and child mortality, and violence and injury. She explained how these challenges are intertwined with historical and structural inequalities, contributing to ongoing health disparities.

Regarding the HIV epidemic, she linked its prevalence to the legacies of colonialism and Apartheid, such as the migrant labour system and poor access to healthcare for marginalised communities. For COVID-19, she discussed the disparities in mortality and hospitalisation rates, noting how race and socioeconomic status played a significant role in outcomes during the pandemic.

Prof Gray also addressed the importance of addressing systemic issues within the healthcare system to reduce infant mortality rates, which remain high due to factors like poor access to care and inadequate maternal health services. She emphasised the crucial role of medical research and science in addressing these disparities and improving public health outcomes, calling for continued investment and interest in health sciences to drive change.

Day 1: Faculty Research Day Workshops



Ms Sanele Mathibela commenced the Faculty Research Day Workshops, extending a warm welcome to the attendees of this special event. She particularly welcomed the honours students, many attending the event for the first time, and reassured them that their participation would be valuable. Ms Mathibela chaired five consecutive workshop sessions, which included: 'Introduction to Stata', 'Chi-square AI-assisted Research', 'Research Funding and Opportunities', 'Building Resilience: Thriving in a Demanding Academic Environment', and 'Intellectual Property, Innovation, and Contracts Management'. Additionally, she presided over the final oral presentation session on the second day, under the sub-theme 'Interventions to Promote Health Care for Vulnerable Populations'.

Introduction to Stata Workshop



Prof Alfred Musekiwa (Associate Professor, School of Health Systems and Public Health [SHSPH], Head of Health Measurement Sciences) and **Dr Kuhlula Maluleke** (Senior Lecturer in Biostatistics and Epidemiology). This workshop equipped participants with essential skills in data analysis. Ideal for beginners and those seeking to enhance their expertise, the workshop covered all key aspects of effectively using Stata.



Participants learned to confidently navigate Stata's interface, automate repetitive tasks using do-files to ensure reproducibility and explore various methods of importing data. The workshop also delved into data exploration techniques, helping participants uncover valuable insights within their datasets, and included training in data visualisation to create compelling graphs. Additionally, attendees gained foundational knowledge in fundamental statistical analysis, enabling them to extract meaningful insights from their data.

Chi-square AI-assisted Research



Dr Israel Agaku (Adjunct Clinical Professor at the University of California, San Francisco, USA). This session introduced a cutting-edge platform that provides comprehensive support for every stage of survey design, implementation, analysis, and reporting. By the end of the session, participants had acquired the skills to use the Chi-square platform to calculate sample sizes for various study types, instantly draw representative samples to ensure the generalizability of their results, and design and launch both cross-sectional and longitudinal surveys. They also learned how to collect data offline on electronic devices in areas without internet access, generate methodology and analysis reports with a single click, and quickly create calibration weights to enhance the representativeness of their data.

Research Funding and Opportunities



Dr Abeda Dawood (Division Manager for Research Capacity Development at the South African Medical Research Council [SAMRC]) and **Dr Lindokuhle Ndlandla** is a Programme Manager in the SAMRC's Division of Research Capacity Development. This workshop proved highly informative for academics, researchers, and postgraduate students by providing valuable insights into the various grants and funding opportunities available through the SAMRC.



Building Resilience: Thriving in a Demanding Academic Environment



Mahlatse Mokwena is a Counselling Psychologist registered as an independent psychologist with the Health Professions Council of South Africa (HPCSA). The workshop focused on the importance of resilience in today's fast-paced academic landscape. It provided tools and strategies to help participants navigate academic pressures effectively. Key topics included understanding the psychological and physiological aspects of resilience, identifying common academic stressors, and developing a resilient mindset. The workshop covered practical strategies for managing stress, maintaining mental health, and improving time management. It also emphasised the importance of creating supportive environments and addressed resilience in research and teaching.

Intellectual Property, Innovation, and Contracts Management



Dr Simon Thanyani, an expert in intellectual property law, delivered an insightful workshop on the critical aspects of managing intellectual property (IP), innovation, and contracts. Participants gained valuable insights into the legal framework surrounding intellectual property, the commercialisation process, and strategies for managing contracts in research and innovation contexts. The workshop provided a comprehensive understanding of the intersection between law, technology transfer, and entrepreneurship, equipping attendees with the knowledge to navigate these domains successfully.

Sponsors' Showcase

Dr Thabiso Miya chaired a parallel session dedicated to Sponsor Presentations and Product Demonstrations. In his opening remarks, he welcomed the audience and the sponsors of the Faculty Research Day. The following sponsors presented and showcased their products: Inqaba Biotechnical Industries (Pty) Ltd, Labotec, Genoa Underwriting Managers, Biodex Scientific, Sartorius, Thermo Fischer Scientific, Advanced Laboratory Solutions, The Scientific Group, and Whitehead Scientific.



Day 2: Faculty Research Day



Dr Tshepiso Mfolo opened the 2024 Faculty of Health Research Day by welcoming the attendees, including the Dean, Deputy Deans, School Chairs, Heads of Departments, academic staff, students, distinguished guests, and sponsors. She expressed her honour in serving as the Programme director for the event, which aimed to bring together academics and leaders to discuss critical health issues. The theme of the day, **'Navigating Health Disparities in Vulnerable Communities'**, highlighted the importance of addressing health inequities, particularly in underserved populations. Dr Mfolo also introduced Prof Mashamba-Thompson, who formally welcomed everyone to the event and extended a special welcome to the keynote speaker.

Poster displays and presentations

Ninety-eight posters were displayed in the foyer under the sub-themes of 'Interventions to Promote Health Care for Vulnerable Populations', 'Paradigm Shift for Patient Care: From Diagnostics to Therapies to Clinical Management', 'Maternal and Child Health; Chronic Disease Management,' and 'Response to the Impact of Climate Change on Health'. Participants could view the posters throughout the day, during comfort breaks and at lunchtime.



Oral presentations

Theme 1: Interventions to Promote Health Care for Vulnerable Populations

This theme was presented over three sessions presented by **Dr Juanita Mellet**, **Dr Thabiso Miya**, and **Miss Sanele Mathibel**



Table: Oral presentations under the subtheme 'Interventions to Promote Health Care for Vulnerable Populations'.

Presenter	Title
Mr Dennis Muziyifane Maluleka	DETERMINING THE RESILIENCE AND COPING MECHANISMS AMONGST POSTGRADUATE STUDENTS IN THE SCHOOL OF MEDICINE AT THE UNIVERSITY OF PRETORIA
Ms Lizzy Madiwani	MOLECULAR EPIDEMIOLOGY OF EXTRAINTESTINAL PATHOGENIC ESCHERICHIA COLI CAUSING BLOODSTREAM INFECTIONS IN HOSPITALISED PATIENTS IN THE PRIVATE HEALTHCARE SECTOR IN GAUTENG, SOUTH AFRICA
Ms Anice Gous and Ms Line van der Westhuizen	DETERMINING THE KNOWLEDGE, ATTITUDES AND FREQUENCY OF USE OF FINAL YEAR HEALTH CARE STUDENTS IN IMPLEMENTING EVIDENCE-BASED PRACTICE
Ms Annamarie van Wyngaard	INNOVATIVE INTERVENTION PROGRAMME FOR LEARNERS WITH INTELLECTUAL DISABILITY
Ms Lindokuhle Kunene	THE INDEPENDENT ASSOCIATIONS BETWEEN SOCIO-ECONOMIC STATUS, PHYSICAL BEHAVIOURS AND MARKERS OF METABOLIC SYNDROME IN SA WOMEN FROM A LOW SOCIOECONOMIC SETTING: A CROSS-SECTIONAL ANALYSIS
Mr Elias Moroe	ASSOCIATION BETWEEN WATERPIPE-SMOKING AND HISTORY OF COVID-19 INFECTION AMONG AN ONLINE SAMPLE OF YOUNG SOUTH AFRICAN ADULTS
Miss Lz Spaltman	VIRULENCE AND ANTIMICROBIAL RESISTANCE PROFILE COMPARISON OF STAPHYLOCOCCUS AUREUS ISOLATES FROM PERSONS WHO INJECT DRUGS AND NON-INJECTING INDIVIDUALS IN GAUTENG
Ms Thalia Campos	IN VITRO INFLUENCE OF PAPAVERINE ON PROLIFERATION, MORPHOLOGY AND OXIDATIVE STRESS IN TUMOURIGENIC CELLS
Ms Lungile Nkosi	RACIAL DIFFERENCES IN FOOD INSECURITY AMONG SOUTH AFRICAN ADULTS DURING 2021: A DECOMPOSITION ANALYSIS
Mr Niel de Beer	POLYGALIA VIRGATA FRACTIONS REDUCE OXIDATIVE STRESS IN A 6-HYDRODOPAMINE-INDUCED SH-SY5Y CYTOTOXICITY MODEL
Ms Nonhlanhla Mbonani	EVALUATION OF THE LABELLING ADHERENCE OF THE FOOD-ASSOCIATED EFFECTS OF SELECTED PHARMACOTHERAPY
Prof Anri Human	TO MANUALLY OR MECHANICALLY COUGH: WHAT IS THE QUESTION! COUGH AUGMENTATION IN CHILDREN WITH NEUROMUSCULAR DISORDERS: A FEASIBILITY STUDY
Ms Leanne van Rooy	ELEMENTS OF A CARE PATHWAY FOR HUMAN TRAFFICKING VICTIMS IN EMERGENCY DEPARTMENTS
Dr Sharol Maila	INFORMED CONSENT AND ETHICAL ISSUES PERTAINING TO FEMALE STERILISATION: A SCOPING REVIEW
Mrs Annah Lesunyane	UTILISATION OF LIFE SKILLS IN THE PROVISION OF UNIVERSITY-BASED WELLNESS SUPPORT FOR UNDERGRADUATE STUDENTS IN HEALTH PROFESSIONS: A SCOPING REVIEW
Mrs Hafsa Essop	PREGIDOSE, A MOBILE APPLICATION TO SUPPORT OCCUPATIONAL HEALTH AND WELLBEING OF VULNERABLE PREGNANT RADIOGRAPHERS
Mr Jacobus Scheepers	INVESTIGATING THE EFFECT OF A FOLLICLE-STIMULATING HORMONE RECEPTOR ANTAGONIST ON THE FORMATION AND MATURATION OF OSTEOCLASTS IN VITRO
Mr Zander Niehaus	VIRULENCE AND GENETIC RELATEDNESS OF ENTEROCOCCUS FAECALIS BACTERIA ISOLATED FROM PATIENTS WITH URINARY TRACT INFECTIONS AT PUBLIC HOSPITALS IN GAUTENG, SOUTH AFRICA
Mr Egan Mulondo	INTEGRON AND EFFLUX PUMP GENES ASSOCIATED WITH MULTIDRUG-RESISTANT PSEUDOMONAS AERUGINOSA ISOLATES FROM PUBLIC HOSPITALS IN GAUTENG, SOUTH AFRICA

Theme 2: Paradigm Shift for Patient Care: From Diagnostics to Therapies to Clinical Management

This theme was presented in two sessions chaired by **Dr Thabo Hamiwe** and **Dr Chantelle Howlette-Downling**.



Table Oral presentations presenters under the sub-theme 'Paradigm Shift for Patient Care: Diagnostics to Therapies to Clinical Management'

Presenter	Title
Ms Kazadi Ngoie	ASSOCIATION BETWEEN REPLICON GENES AND ANTIBIOTIC RESISTANCE IN INVASIVE STAPHYLOCOCCUS AUREUS INFECTIONS IN GAUTENG, SOUTH AFRICA
Ms Hafiza Parkar	PROTEOMIC CHARACTERISATION OF PROCESSED EXTRACELLULAR MATRIX SCAFFOLDS FOR WOUND HEALING
Ms Lesley Meyer	PHYSIOTHERAPISTS' EXPERIENCES OF FORENSIC AUDITS BY SOUTH AFRICAN MEDICAL FUNDING SCHEMES
Ms Gontse Ramela	PREVALENCE OF COMPLICATIONS ASSOCIATED WITH PROSTATE CANCER TREATMENT AT A TERTIARY HEALTH INSTITUTION IN GAUTENG PROVINCE, SOUTH AFRICA
Ms Hlambani Shirinda	FIRST REPORT OF CLOSTRIDIODES DIFFICILE HYPERVIRULENT STRAIN ST1 AND ST11 IN SOUTH AFRICA
Mr Darren Chetty	THE EFFECTS OF AN ESTRADIOL DERIVATIVE AND JASPLAKINOLIDE ON THE ACTIN CYTOSKELETON IN BREAST CANCER CELLS
Ms Linomtha Gabada	PATHWAY ANALYSIS OF SPHINX31 SMALL MOLECULE INHIBITOR INTERACTING WITH SERINE/THREONINE PROTEIN KINASES IN PROSTATE CANCER CELLS: AN IN-SILICO APPROACH
Ms Cecillia Sambakunsi	ACCEPTANCE OF COVID-19 VACCINES AMONG ADULTS AGED 18 YEARS AND OLDER IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS
Ms Boneswa Xhekwani	THE INCIDENCE OF ELECTROCARDIOGRAPHIC (ECG) SUGGESTIVE OF MYOCARDIAL INFARCTION IN PATIENTS ATTENDING KALAFONG PROVINCIAL TERTIARY HOSPITAL DIABETES CLINIC
Mrs Stefanie Kruger	A NEWLY DEVELOPED OBSERVATION MEASUREMENT TOOL FOR SENSORY-MOTOR FACTORS IN CHILDREN WITH COCHLEAR IMPLANTS.
Dr Martins Nweke	MODELLING OF NON-COMMUNICABLE DISEASES AND HEALTH-RELATED OUTCOMES: CHARTING A NEW PATH FOR INCLUSIVE AND COST-EFFECTIVE PUBLIC HEALTH
Ms Mpho Seleka	PREVALENCE, PREDICTORS AND GEOSPATIAL PATTERNS OF HIV DRUG RESISTANCE IN SOUTH AFRICA: INSIGHTS FROM THE 2017 NATIONAL HIV HOUSEHOLD SURVEY

Theme 3: Maternal and Child Health; Chronic Disease Management

Dr Francois du Toit chaired the final parallel session under the third sub-theme of the 2024 Faculty Research Day.



Presenter	Title
Ms Nompumelelo Malaza	ASSOCIATION BETWEEN BIOCHEMICAL AND EPIGENETIC MARKERS WITH GLYCAEMIC CONTROL AND NEONATAL OUTCOMES IN PREGNANCIES COMPLICATED BY DIABETES
Mr Makoae Mathaha	RETENTION AND PREDICTORS OF ATTRITION AMONG HIV-INFECTED PREGNANT WOMEN IN LESOTHO NATIONAL PMTCT PROGRAMME BETWEEN 2015 AND 2020: A RETROSPECTIVE COHORT STUDY
Ms Rethabile Phaala	THE PREVALENCE OF DEPRESSIVE AND GENERALIZED ANXIETY FEATURES AMONG CHRONIC CARE PATIENTS ATTENDING A FAMILY MEDICAL CENTRE IN JOHANNESBURG, SOUTH AFRICA
Prof Werner Cordier	(RE)-MAPPING THE PHARMACOLOGY CURRICULUM IN THREE HEALTHCARE PRACTITIONER PROGRAMMES
Ms Tarryn Randomsky	EXPLORING MECHANISMS BY WHICH THE PHARMACOLOGICAL CHAPERONE, LHR-CHAP, AFFECTS PROCESSING OF LUTEINISING HORMONE RECEPTOR VARIANTS
Mrs Johannah Ouma Vilane	PLACENTAL FINDINGS IN TERM SINGLETON STILLBIRTHS IN A PUBLIC HOSPITAL IN EMALAHLENI SUB-DISTRICT MPUMALANGA PROVINCE
Mr Tumelo Fortuin	MOLECULAR CHARACTERISATION AND EVOLUTION OF THE HIV-1 GROUP-SPECIFIC ANTIGEN GENE DURING EARLY AND CHRONIC HIV-1 INFECTION STAGES

Panel discussion

The Faculty Research Day included a panel discussion that unpacked 'Navigating Health Disparities in Vulnerable Communities'. The discussion was chaired by **Prof Vanessa Steenkamp** (Deputy Dean: Teaching & Learning). She was joined by **Dr Gwen Ramokgopa**, **Prof Rachel Jewkes**, **Prof Arthur Rantloane**, **Ms Thulile Zondi** and **Prof Werdie van Staden**.



Key takeaway points from the panel discussion:

- **Data-Driven Approaches to Health Disparities:** The panel emphasised that the effective use of epidemiological data is vital for identifying and addressing health disparities, especially in vulnerable communities. Programs like the HIV 95-95-95 strategy were examples of how data was used to guide targeted interventions and track progress toward public health goals.
- **Ethical Considerations in Health Equity:** A significant ethical challenge discussed was societal attitudes that viewed vulnerable populations as inferior. The panel underscored the importance of upholding equal dignity for all individuals, aligning with South African constitutional values and global human rights standards.
- **Holistic Resource Allocation:** Government resource allocation has focused on addressing vulnerable groups' specific needs. The discussion highlighted South Africa's progress with interventions like child vaccinations and social grants, which had addressed historical and socioeconomic disparities, though challenges remained in reducing the overall disease burden.

- **Prioritizing Research Based on Disease Burden:** The SAMRC has prioritised research based on the country's disease burden, focusing on major causes of mortality such as HIV, TB, and non-communicable diseases. The panel also noted the importance of addressing mental health as a significant risk factor affecting vulnerable populations, even if it did not directly lead to death.
- **Health Professional Training for Vulnerable Populations:** The training of health professionals has increasingly incorporated community-based experiences to help them recognise and address health disparities. This approach ensured that future practitioners would understand the unique challenges faced by vulnerable populations and could effectively advocate for their needs.
- **Translating Research into Practice:** The panel stressed that research findings must be translated into actionable clinical interventions to benefit vulnerable populations. This included developing locally relevant solutions, especially in areas like HIV prevention and gender-based violence, where interventions from other countries had not always been appropriate for South Africa.
- **Collaboration and Community Engagement:** It was emphasised that addressing health disparities required collaboration across sectors and active community engagement. Interventions are needed to align with the priorities of vulnerable populations, addressing health issues and social determinants like food security and economic stability.

Award Ceremony

List of prizes

Best Oral Presentation	Type of Award	Value in Rands
Postgraduate student:		
Honours	Local conference travel grant	R2 500.00
Master's	Local conference travel grant	R2 500.00
Doctoral	Local conference travel grant	R2 500.00
Emerging academic	International conference travel grant	R5 000.00
Advanced academic	International conference travel grant	R5 000.00
Best Poster		
Best Poster	Student Poster prize (1st prize: R500 Bookmark voucher, R300 Marketing voucher, R200 Lunch voucher. 2nd prize: R250 Marketing voucher, R150 Lunch voucher. 3rd prize: R100 Lunch voucher)	
	Academic Poster prize (1st prize: R750 Marketing voucher, R350 Bookmark voucher, R250 Lunch voucher. 2nd prize: R300 Marketing voucher, R200 Lunch voucher. 3rd prize: R150 Lunch voucher)	
Postgraduate student:		
Honours	Poster prize	R1 500.00
Master's	Poster prize	R1 500.00
Doctoral	Poster prize	R1 500.00
Emerging academic	Poster prize	R2 000.00
Advanced academic	Poster prize	R2 000.00
Other		
Best exhibition stand by an Entity	1st prize: R10 000 towards research + Postdoctoral Fellow	
	2nd prize: R5 000 towards research + Postdoctoral Fellow	
	3rd prize: Postdoctoral Fellow	
TOP 3 FHS Champions of Research Visibility and Impact 2023	R1000 prize for three winners	R3 000.00

The following recipients received awards within their respective sessions. Best Oral Presentations:



Honours: Miss Anice Gous and Miss Line van der Westhuizen, **Master's:** Ms Nonhlanhla Mbonani, and **Doctoral:** Ms Tarryn Randomsky



Emerging Academic (Postdocs, Lecturers, Senior Lecturers): Dr Hafsa Essop, Maphuti Tebogo Lebelo, Dr Salome Bothma, and Dr Juanite Mellet



Advanced academics: Prof Anri Human, Prof Sandra Spijkerman, and Prof Joachim Potgieter



Best Poster Honours: 1st Prize: Faith Ledwaba, 2nd Prize: Kiara van Eck, 3rd Prize: Hannah Prawde



Best Poster Master's: 1st Prize: Matladi Tholo, 2nd Prize: Mokawane Mohlamonyane, 3rd Prize: Yordanos Kebede



Best Poster Doctoral: 1st Prize: Dr Patrick Kambuyi, 2nd Prize: Kapari Mashao, 3rd Prize: Fatima Barmania



The Best Exhibition Stand by an Entity Award. This year, we had three winners: 1st Prize: Forensic Anthropology Research Centre; 2nd Prize: Institute for Cellular and Molecular Medicine, 3rd Prize: Centre for Neuroendocrinology

Faculty of Health Sciences Champion of Research Visibility and Impact: These three researchers whose research is visible and has a societal impact, 2024 research is highly cited in policy documents, patents, and mentions on Social Media. Their ORCIDs are fully populated and linked. In no particular order: Prof Wanda Markotter, Prof Mike Sathekge and Prof Carel Viljoen



Prof Mashamba-Thompson welcomed the Tuks Undergraduate Research Forum (TURF) to the stage, followed by the outgoing chairperson, Vanessa Gwekwa, who introduced the new 2024/2025 committee.

Launch of a New Postgraduate Programme

Dr Sanele Ngcobo introduced a new master's degree in Community Oriented Primary Care from the Department of Family Medicine. The MSc (Community Oriented Primary Care), offered by the Department of Family Medicine at the University of Pretoria, is a fully research-based master's degree designed to equip health professionals with advanced research skills to tackle complex health issues through evidence-based approaches. The programme focuses on re-engineering primary healthcare using the COPC approach and welcomes students from diverse health-related backgrounds, including clinical associates, medical practitioners, nurses, and allied healthcare professionals. Graduates will be prepared for PhD-level studies or leadership roles in COPC-related research and care coordination. For those interested in enrolling or participating as supervisors, please enter your details using the following link:

https://pretoria.eu.qualtrics.com/jfe/form/SV_2oCU28sXHHebkrA.



Vote of Thanks

Prof Tivani Mashamba-Thompson thanks all keynote speakers, presenters, and event sponsors. She thanked presenters, attendees, the steering committee and adjudicators for the 2024 Faculty Research Day. She gave special thanks to the logistics, technical and planning committees.



2024 Faculty Research Day Committee

She commended **Ms Gertrude Mamabolo** and **Ms Anwani Nekhumbe** for their excellent event management, as well as the Faculty Communications and Marketing Manager, Ms Sindisiwe Kubeke and Ms Karen de Pleez. Faculty Research Support Hub interns and the team of volunteers were also acknowledged. Mashamba-Thompson ended her vote of thanks by opening the social event, the final session of 2024 Faculty Research Day.

Scientific Committee

The 2024 Faculty Research Day consists of a diverse, dynamic team (pictures and affiliations listed below) from the various FHS and UP Library Services representing the different departments. The scientific committee was responsible for conceptualising the conference programme and identifying and nominating speakers and key stakeholders to ensure attraction to the participants for the 2024 Faculty Research Day. The Faculty Research Day adjudicators also form part of the scientific committee. This was done under the leadership of Prof Mashamba-Thompson, the chairperson of the Scientific Committee.



Adjudication

Adjudicators were assigned five posters or oral presentations to adjudicate. The posters were displayed throughout Faculty Research Day, and oral presentation times were indicated in the programme. Adjudicators scored the posters and presentations according to how well they aligned with the given themes and provided sufficient and relevant information on their project topics. The scores were tallied to determine the best poster and oral presentations at the honours, Master's, PhD and Post-doctoral levels.

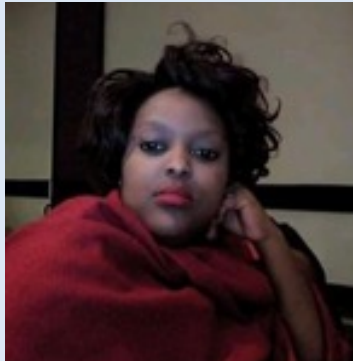
Names of Adjudicators

The names of the adjudicators and the type of projects they reviewed are listed in the table below.

Adjudicator	Type of research to review	Adjudicator	Type of research to review
Dr Marissa Balmith	Poster	Prof Jeanine Fourie	Poster and Oral
Prof Werner Cordier	Poster	Dr Pooveshni Naidoo	Poster
Mrs Hafsa Essop	Poster	Dr Maurine Musie	Poster
Dr Mlindeli Gamede	Poster	Prof Nombulelo Sepeng	Poster and Oral
Dr Abe Kasonga	Poster and Oral	Dr Tshepiso Mfolo	Poster
Prof Marleen Kock	Poster	Ms Germaine Lovric	Poster
Miss Gabi Kruger	Poster	Dr Sanele Ngcobo	Poster and Oral
Prof Janet Bester	Poster	Mr Roodney Mudau	Poster
Ms Claudina Nogueira	Poster and Oral	Prof Anri Human	Poster and Oral
Mrs Andrea Prinsloo	Poster and Oral	Prof Carel Viljoen	Poster
Mr Okuhle Sapu	Poster	Mrs Muhle Komati	Poster
Prof Prashilla Soma	Poster	Prof Ahmed Bhayat	Poster and Oral
Prof Leanne Skyes	Poster	Dr Phumudzo Tshiambara	Poster
Dr Chantal van Niekerk	Poster	Mrs Kapari Mashao	Poster
Prof Albert van Schoor	Poster and Oral	Dr Kuhlula Maluleke	Poster
Prof Candice van Wyk	Poster and Oral	Dr Siphesihle Robin Nxele	Poster
Ms Thato Serite	Poster	Dr Christa Ellis	Poster and Oral
Dr Melvin Ambele	Poster	Dr Helga Lister	Poster
Prof Thomas Ebenhan	Poster	Dr Rubine Brandon	Poster and Oral
Dr Machel Leuschner	Poster	Mrs Luzyl Gower	Poster
Dr Emmanuel Masebatlela	Poster and Oral	Ms Joy Ndalane	Poster
Prof Sim Mayaphi	Poster	Dr Tshepo Moto	Poster
Prof Joji Mercier	Poster and Oral	Dr Neo Ledibane	Poster and Oral
Ms Shamiso Mlambo	Poster	Prof Alfred Musekiwa	Poster and Oral
Dr Nkhensani Mogale	Poster	Prof Trevor Nyakuda	Poster
Dr Thandi Mhlanga	Poster	Dr Priyesh Bipath	Poster and Oral
Ms Hafiza Parkar	Poster	Prof Zodwa Nkambule	Poster
Prof Sophy van der Bergh-Cloete	Poster	Dr Thobeka Dlangalala	Poster
Dr Michelle Visagie	Poster	Dr Vicroria Oyekunle	Poster and Oral
Dr Thabi Soul	Poster and Oral	Prof Marthie Ehlers	Oral
		Prof Sophy van den Bergh-Cloete	Oral

Logistics and Planning Committee

The 2024 Faculty Research Day Organising Committee consisted of FHS staff, under the leadership of **Mrs Gertrude Mamabolo** and **Ms Anwani Nekhumbe** as the Chairpersons of this committee.



The committee comprised the Dean's office staff members and departments, including marketing and operations. The responsibility of this committee was to invite sponsors and manage the website and all logistics, including delegates' registration and in-person attendance sites. The committee worked closely with the Scientific Committee to ensure efficient communication and coordination with delegates and presenters in preparation for the event.

2024 Faculty Research Day Evaluation Findings

A total of 75 participants, representing approximately 13.1% of the attendees, completed the Google form evaluation. Of these, 35 respondents were from the School of Medicine, nine from the School of Dentistry, 24 from the School of Healthcare Sciences, and seven from the SHSPH, with the remaining responses coming from other departments. The highest proportion of responses was from the School of Medicine. Regarding attendance of the respondents, 5.3% of respondents participated in Day 1 of the Faculty Research Day (Figure 1), while 22.7% attended only Day 2. The second day of the event had the highest attendance among those who could not participate on both days (Figure 3). The majority of respondents (72%) attended the event on both days, with 5.3% attending only Day 1 and 22.7% attending only Day 2 (Figure 1).

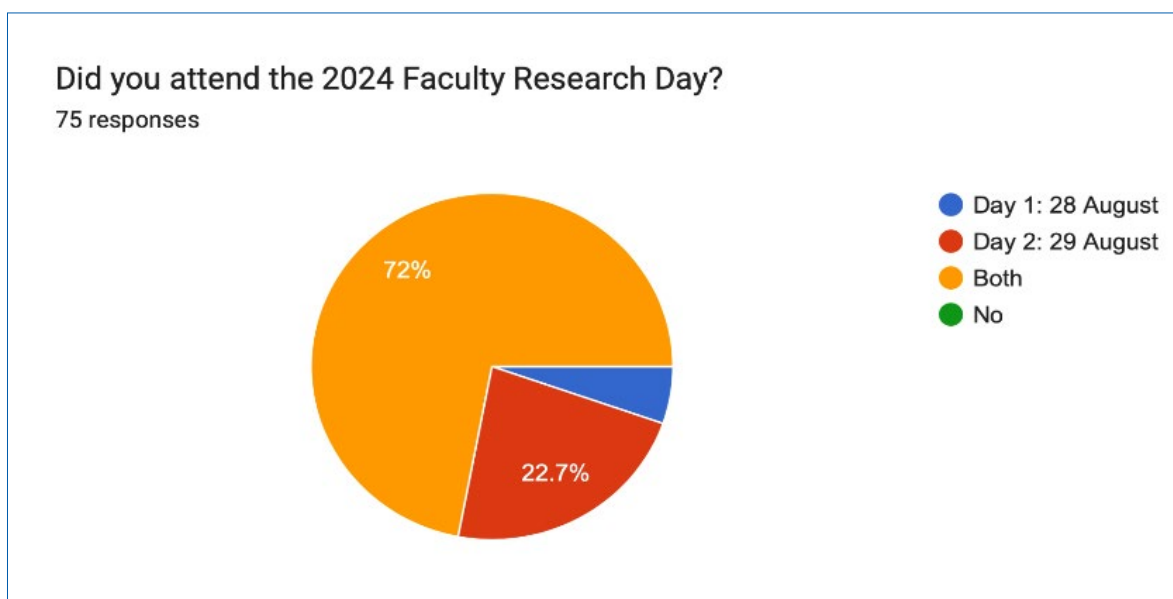


Figure 1: Research Day mode of attendance

The respondents identified oral presentations (58.7%), followed by the panel discussion (46.7%) and poster viewing (41.3%), as the most engaging sessions or components of the 2024 Faculty Research Day (Figure 2).

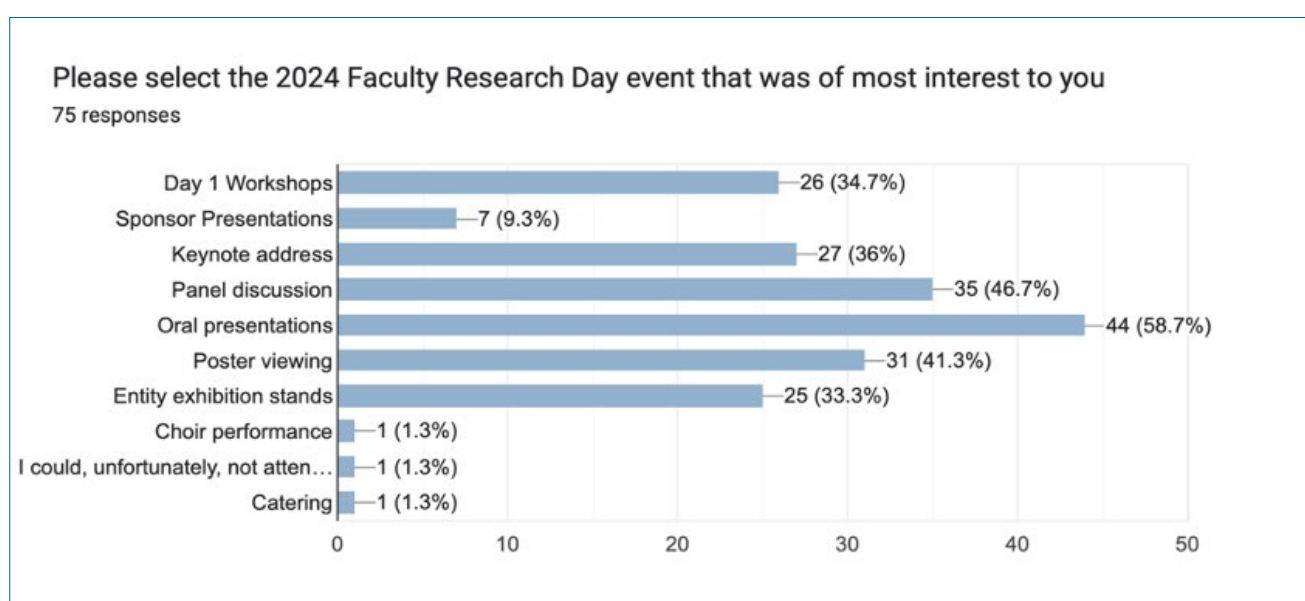


Figure 2: Most interesting aspects of Faculty Research Day

The respondents rated their experience of Faculty Research Day components on a scale of 1 to 5 (Figure 3):

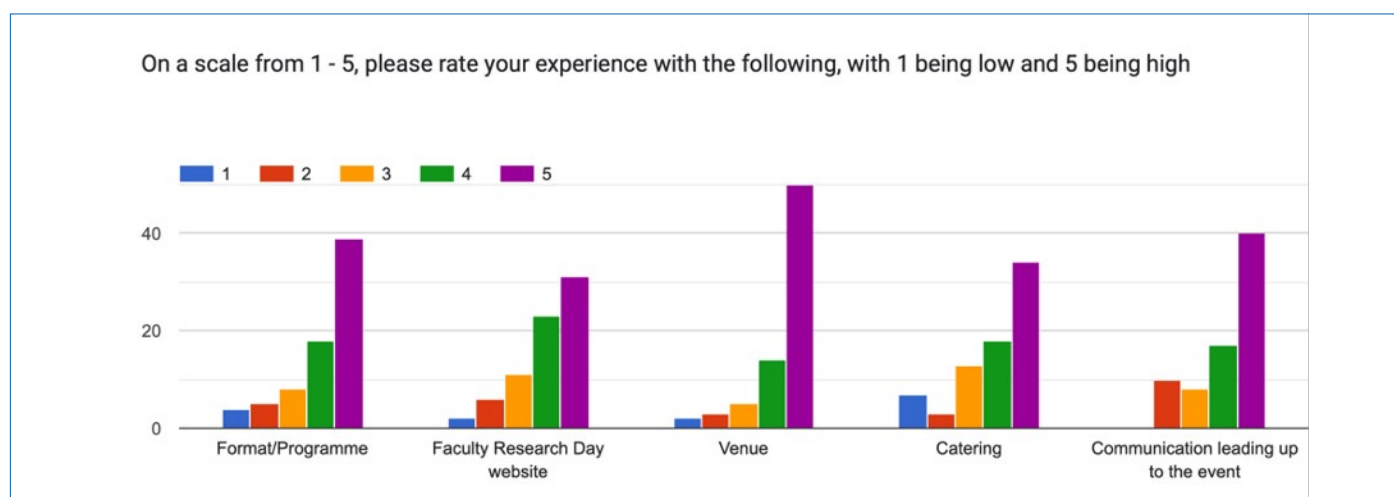
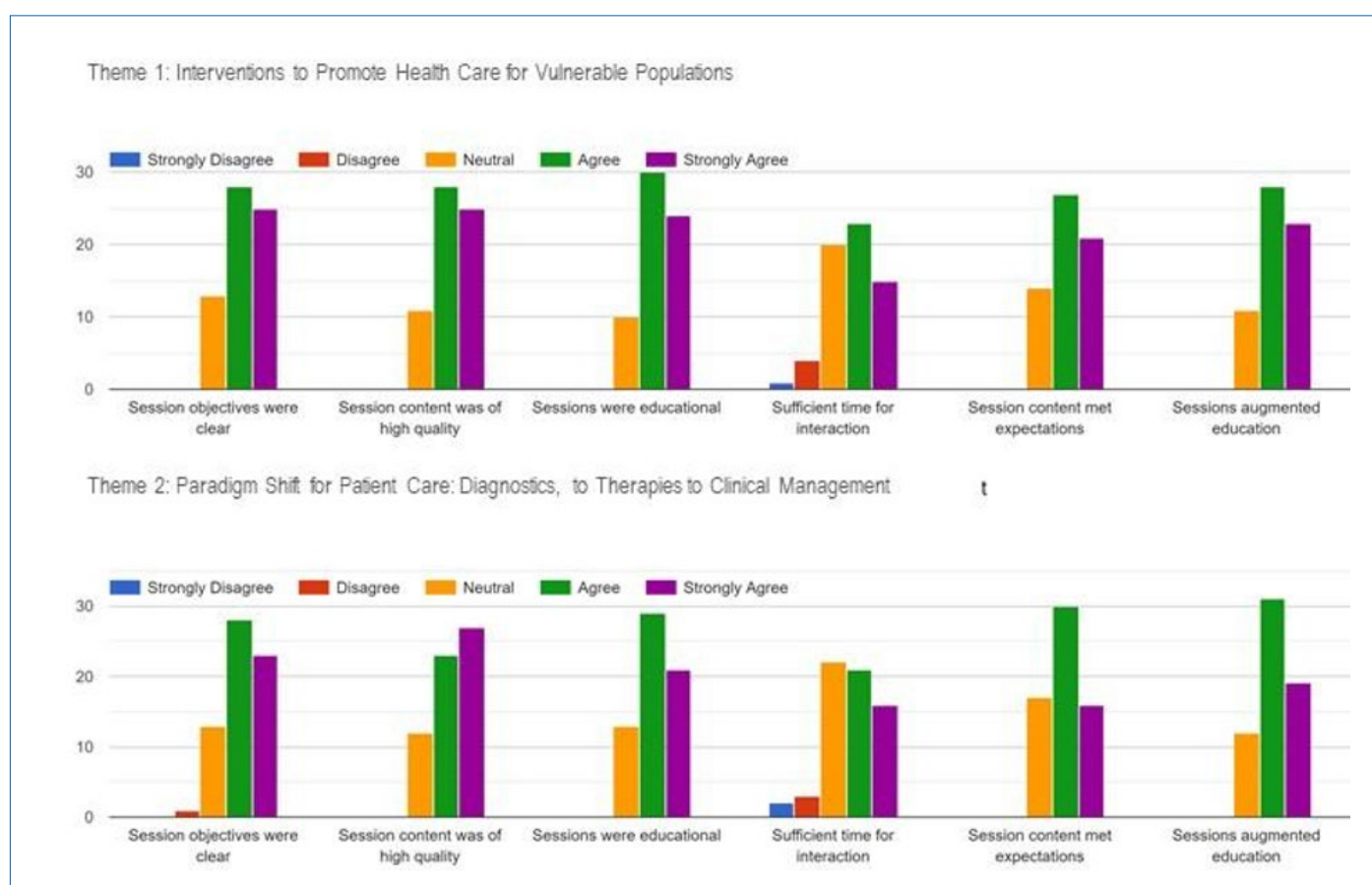


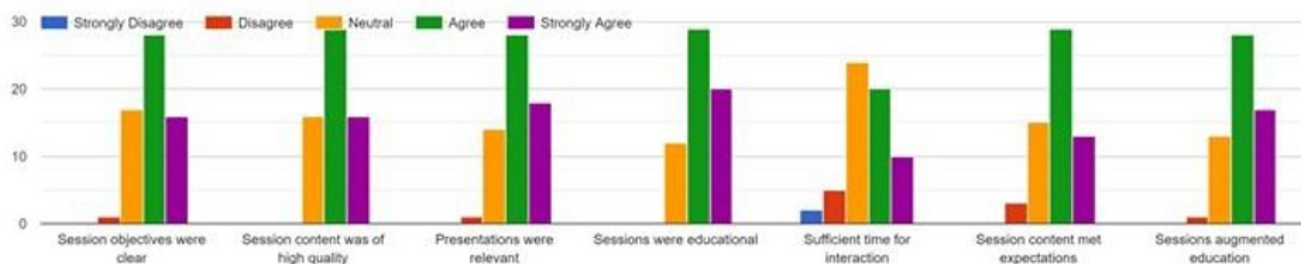
Figure 3: Rating of Faculty Research Day components.

All Faculty Research Day sessions were highly rated on the following aspects (Figure 4):

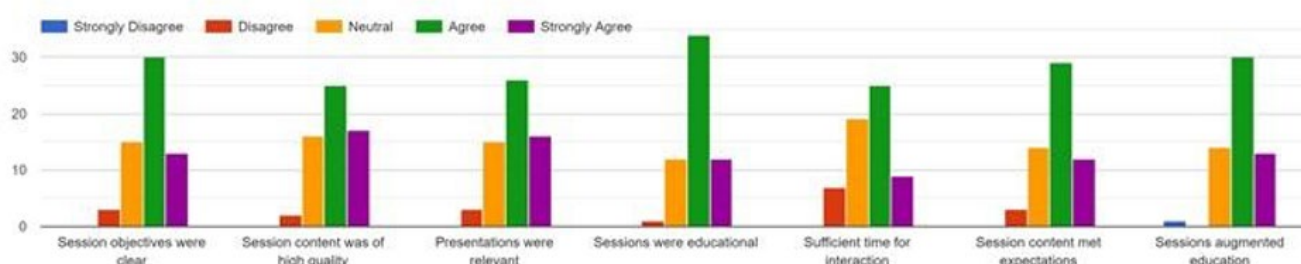
1. Clarity of the session objectives
2. Quality of the event sessions
3. Relevance of the presentations
4. Clarity of panel discussions
5. Potential educational impact of the session
6. Adequacy of time slot for the session
7. Adequacy of the content for the session



Theme 3: Maternal and Child Health; Chronic Disease Management



Theme 4: Response to the Impact of Climate Change on Health



A total of 56.8% of respondents indicated that they would likely recommend the Faculty Research Day to a friend or colleague, suggesting that the event was positively received (Figure 5).

How likely are you to recommend Faculty Research Day to a friend or colleague?

74 responses

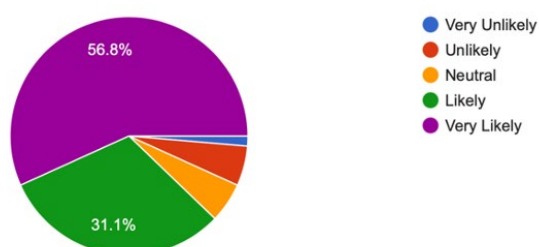


Figure 5:

Recommendation of Faculty Research Day.

Respondents gave constructive comments and suggestions, with a few summarised in Figure 6, which will be considered for future events of a similar nature.

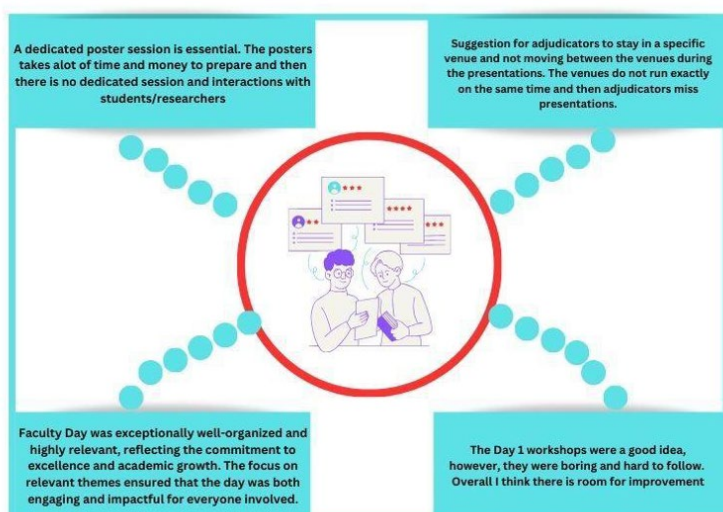


Figure 6:

Constructive feedback and suggestions by respondents.

Acknowledgements

- Programme directors of 2024 Faculty Research Day 1 and 2: Dr Thabiso Miya, Dr Juanita Mellet, Dr Thabo Hamiwe, Dr Chantelle Howlett-Downing, Ms Sanele Mathibela, Dr Tshepiso Mfola, and Dr F.C. du Toit
- Keynote speaker: Prof Glenda Gray
- Ms Sanele Mathibela for contributing to the authorship of the first draft of the 2024 Faculty Research Day report together with Prof Tivani Mashamba-Thompson.
- Dr Cheryl Tosh for 2024 Faculty Research Day editorial support
- Ms Karen du Preez for supporting Faculty Day and preparing the venue for the event
- Miss Vanessa Nobuhle Gxekwa for introducing the 2024/2025 TURF committee
- 2024 Faculty Research Day Steering Committee
- 2024 Faculty Research Day Scientific Committee
- 2024 Faculty Research Day Faculty of Health Sciences Marketing and Communications department
- 2024 Faculty Research Day Adjudicators
- All external sponsors for sponsoring this event
- Eyescape photography and the production team for documenting all aspects of Faculty Research Day
- All volunteers who gave up time to assist in the smooth running of the event
- University of Pretoria Security Services and Technical Services, who assisted with getting the venue ready
- Amor caterers for their culinary delights

Appendices



SCAN THE QR CODE TO VIEW THE FACULTY DAY PROGRAMME

THEME: Navigating Health Disparities in Vulnerable Communities

VENUE: TSWELOPELE BUILDING, PRINSHOF SOUTH CAMPUS

DATE: 28 and 29 August 2024

#LifeChangers

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